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Cooling power optimal control method for motor, involves controlling ventilator and flaps using controller so that preset maximum temperature

at fitting location of temperature sensors is not exceeded

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Number of Countries: 088 Number of Patents: 004

Patent Family:

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DE 10035770 A1 20020131 DE 1035770 A 20000722 200221 B
WO 200208588 A1 20020131 WO 2001DE1529 A 20010421 200233
AU 200158218 A 20020205 AU 200158218 A 20010421 200236
DE 10192950 T 20030710 DE 1092950 A 20010421 200353
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Patent Details:

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DE 10192950 T F01P-011/16 Based on patent WO 200208588

Abstract (Basic): DE 10035770 A1

NOVELTY - The method involves controlling a ventilator (5) and the flaps (1) using a controller (7) so that the preset maximum temperature at the fitting location of the temperature sensors (6) is not exceeded. The controller regulates the flaps in order to control the cooling air current. The controller regulates the motor cooling power depending on the output signals of the temperature sensors.

DETAILED DESCRIPTION - The motor (3) is connected to a cooler (4) via cooling lines (a). The cooler can be by-passed via valve (9) and by-pass line (b).

USE - For motor of vehicle.

ADVANTAGE - Enables warming the less sensitive parts of the motor quickly, without causing any damage. Enables the individual components of the motor to be able to be laid out particularly with regard to their temperature stress optimally. Enables averting grave motor damage with accordingly high repair costs. Enables warning a driver against threatening damage. Enables reaching the desired operational temperature of the motor quickly. Enables operating the motor with optimal efficiency. Enables reduction of fuel consumption and pollution emissions.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic representation of the area in which a motor with a cooling circuit is

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situated.
    Flaps (1)
    Motor (3)
    Cooler (4)
    Ventilator (5)
    Temperature sensors (6)
    Controller (7)
    Valve (9)
    Cooling lines (a)
    By-pass line (b)
    pp; 8 DwgNo 1/1
Title Terms: COOLING; POWER; OPTIMUM; CONTROL; METHOD; MOTOR; CONTROL;
 VENTILATION; FLAP; CONTROL; SO; PRESET; MAXIMUM; TEMPERATURE; FIT; LOCATE
 ; TEMPERATURE; SENSE
Derwent Class: Q51; Q52; X22
International Patent Class (Main): F01P-007/14; F01P-011/16
International Patent Class (Additional): F01P-003/20; F02B-077/08
File Segment: EPI; EngPI
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